

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGG.- SEMESTER-III EXAMINATION – WINTER 2012

Subject code: 330703**Date: 05/01/2013****Subject Name: Database management System****Time: 2:30 pm – 5:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is Authentic

- Q.1** (a) Differentiate between file-oriented approach for data management and computerized data management. **07**
(b) Explain Client/Server architecture and what are the merits and demerits of this approach. **07**

- Q.2** (a) Describe the functions and responsibilities of DBA. **07**
(b) Explain three level ANSI SPARC database architecture. **07**
OR
(b) List different data models and explain one of them. **07**

- Q.3** (a) Explain primary key and foreign key with example. **07**
(b) What is data independence? Explain types of data independence with example. **07**

OR

- Q.3** (a) What is mapping? Describe types of mapping with example. **07**
(b) Differentiate between schema, subschema and instance. **07**

- Q.4** (a) Explain with example group by, having and order by clause. **07**
(b) Describe different data types and operators in SQL. **07**

OR

- Q.4** (a) Explain with example how you convert the E-R model to relation. **07**
(b) Using relational algebra explain Selection operation and Union operation. **07**

- Q.5** (a) What do you understand by specialization and generalization? **07**
(b) Define following terms of a relational model **07**
(1) Relation (2) Attribute (3) Domain (4) keys (5) Cardinality

OR

- Q.5** (a) Describe following SQL functions **07**
(1) ABS() (2) INITCAP() (3) TRIM() (4) ROUND() (5) CEIL()
(b) Discuss about super class, subclass and relationship. **07**

પ્રશ્ન-૧	અ	Database management માટે File-oriented approach અને Computerized data management વચ્ચે નો તફાવત લખો.	07
	બ	Client/Server architecture સમજાવો અને તેના ફાયદા અને ગેરફાયદા લખો.	07
પ્રશ્ન-૨	અ	DBA ની Functions and Responsibilities વિશે સમજાવો	07
	બ	ANSI SPARC three level database architecture સમજાવો.	07
		અથવા	
	બ	જુદા જુદા Data models લખો અને કોઈપણ એક વિશે સમજાવો.	07
પ્રશ્ન-૩	અ	Primary key and Foreign key વિશે ઉદાહરણ આપી સમજાવો.	07
	બ	Data independence એટલે શું ? ઉદાહરણ આપી સમજાવો.	07
		અથવા	
પ્રશ્ન-૩	અ	Mapping એટલે શું ? અલગ અલગ mapping વિશે ઉદાહરણ આપી સમજાવો.	07
	બ	Schema, Subschema અને Instance ની તફાવત વિશે લખો.	07
પ્રશ્ન-૪	અ	Group by, Having અને Order by clause ઉદાહરણ આપી સમજાવો.	07
	બ	SQL મા Data types and Operators વિશે લખો.	07
		અથવા	
પ્રશ્ન-૪	અ	E-R model ને Relation મા કેવી રીતે ફેરવી શકાય તે ઉદાહરણ આપી સમજાવો.	07
	બ	Relational algebra ની મદદથી Selection operation અને Union operation સમજાવો.	07
પ્રશ્ન-૫	અ	Specialization અને Generalization વિશે સમજાવો ?	07
	બ	નીચે આપેલ Relational model ની terms સમજાવો Relation (2) Attribute (3) Domain (4) keys (5) Cardinality	07
		અથવા	
પ્રશ્ન-૫	અ	SQL functions સમજાવો (1) ABS() (2) INITCAP() (3) TRIM() (4) ROUND() (5) CEIL()	07
	બ	Super class, Subclass અને Relationship વિશે સમજાવો.	07
